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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,490	04/20/2006	Kishor Gajanan Agnihotri	27362U	2404

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EXAMINER	
CHIANG, TIMOTHY S	
ART UNIT	PAPER NUMBER
1796	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,490	AGNIHOTRI, KISHOR GAJANAN	
	Examiner	Art Unit	
	TIMOTHY CHIANG	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,6-8,10 and 12-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,6-8,10 and 12-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This final rejection is made responsive to applicant's arguments and amendments filed 12/01/09. Claims 1, 6-8, 10 and 12-16 are currently pending. All outstanding objections and 35 USC § 112 rejections have been withdrawn.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Applicant amends claims 1 and 10 with the limitation of "fabric tubular roll" and states the support for such may be found on page 8 paragraph 2 of the specification. No such support can be found for the added limitation nor the response regarding the limitations found in applicant's arguments page 6 paragraph 5.

Further, regarding newly amended independent claim 1, Applicant has invoked 35 U.S.C. 112, sixth paragraph with means plus function language to amended claims (In re Donaldson, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994)).

Accordingly, the examiner construes and examines the claims per rule of "functional equivalents".

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 6-8, 10 and 12-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Kosann et al. (US Pat. 5,917,118, hereinafter “Kosann”) in view of Williams et al. (US Pat. 3,056,275, hereinafter "Williams").

Regarding claims 1 and 10, Applicant has invoked 35 U.S.C. 112, sixth paragraph with means plus function language. Kosann discloses an apparatus and method for dyeing fibers or filaments (col. 1, lines 49-62) comprising a prewetting trough, a dye bath, a drying arrangement (Figure 1 and col. 3, lines 9-11), and a supporting system comprising a porous fabric belt, **means** to form a fabric roll from the

said porous fabric belt **for** carrying the fibers or filaments and **means** to guide said fabric roll along with fibers and filaments through the pre-wetting trough (dual-belt conveyor system as taught by Kosann construed as a functional equivalent; Figure 3, structure 61a/b; col. 3, lines 32-37), the dye bath and the drying arrangement **for** dyeing and drying the said fibers or filaments continuously and homogeneously. Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). Though Kosann does not explicitly disclose the material of which the perforated belt is to be made of, the examiner contends the applicant's teaching of "fabric roll", or belt, reads on Kosann's disclosure of "perforated belt".

Kosann discloses the invention substantially as claimed above. However, Kosann fails to disclose the apparatus and method for dyeing fibers or filaments to be comprised of a plurality of prewetting troughs, plurality of dye baths, and that the belt conveyor system comprises of a fabric roll.

Such teaching of plurality of prewetting troughs and dye baths are well known in the art. Furthermore, Williams teaches a plurality of prewetting troughs, plurality of dye baths in an apparatus and method for dyeing fibers or filaments utilizing a support system utilizing a dual-belt type conveyor system for the propose of continuously and homogeneously dyeing fibers or filaments.

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided a plurality of prewetting troughs and a

plurality of dye baths in Kosann in order to provide for continuously and homogeneously dyeing of fibers or filaments as taught by Williams.

Regarding claims 6 and 7, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). Though Kosann does not explicitly disclose the material of which the perforated belt is to be made of, the examiner contends the applicant's teaching of "wherein the belt is a synthetic or natural fabric" or "blended fabric", reads on Kosann's disclosure of "perforated belt".

Regarding claim 8, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). The examiner construes Kosann's disclosure of the belt material "allowing penetration of the dye solution and other solutions" as inherently meeting the claimed limitation of "inert to dyeing" in the instant claim. It would be understood by one skilled in the art that a belt allowing dye solution and other solutions to pass through would inherently require the belt material be inert to dye solution such that the belt material would not interfere or interact with the dye solution or other solutions leading to adherence of dye to the belt material leading to clogging and the lack of penetration as disclosed.

Regarding claims 12 and 13, Kosann discloses an apparatus and method for dyeing fibers or filaments wherein cotton fibers (col. 4, line 9) or filaments are carried between porous belts.

Regarding claim 14, Kosann discloses a method for dyeing fibers or filaments wherein cotton fibers (col. 4, line 9) or filaments are carried between porous belts. The examiner construes this teaching as meeting the limitation of fibers carried in loose form.

Regarding claim 15, Kosann discloses a method for dying fibers or filaments wherein the dye is a vat dye (col. 4, line 7).

Regarding claim 16, Kosann discloses a method wherein the at least one fiber or filament is subjected to “vat dye” (col. 4, line 7). Applicant’s teaching of indigo dyeing reads on Kosann’s disclosure as indigo dyeing is a well known vat dye. Furthermore, Kosann discloses an “oxidizing applicator” (abstract) which lends to an inherent disclosure of indigo dyeing as indigo dye is affixed to fibers via oxidative processes.

Response to Arguments

4. Applicant's arguments filed 12/01/09 have been fully considered but they are not persuasive. With regards to applicant’s amendments to independent claims 1 and 10, support cannot be found for the limitations drawn to "fabric tubular roll". The applicant argues that the fabric tubular roll can be formed by turning sides of the belt 360 degrees so as to meet together. The unsupported new matter fails to overcome the rejection over the prior art of reference.

Regarding applicant’s argument over the combined references of Kosann in view of Williams, the arguments are not persuasive as the motivation for joining is established over the use of a plurality of dye baths as known in the art. Williams is

relevant art as the teachings of Williams are drawn to a dual-belt conveyor system where the object to be dyed is not in direct contact with the rollers or means of forming a "fabric roll". The motivation to combine references is not established or dependent on William's use of wire mesh belt. Therefore, applicant's argument that the grounds of obviousness fails to meet the KSR test is not persuasive.

Regarding applicant's argument that Kosann's dual belt system is for transportation only and not for dying, the argument is not persuasive as Kosann teaches the dual belt system within the structure of the dye applicator and “holds the batt together as it is immersed in the dye solution” (col. 4, lines 60-64).

The Applicant further argues that Kosann by itself, or in combination with Williams fails to disclose "a supporting system comprising a porous fabric belt, means to form fabric tubular roll from the said porous fabric belt for carrying the fibers or filaments and means to guide said fabric tubular roll along with fibers and filaments through the pre-wetting troughs, the dye baths and the drying arrangements”. As the applicant invokes 35 U.S.C. 112, sixth paragraph with means plus function language, the claim limitations are examined per rule of “functional equivalence”. The Examiner contends that Kosann in view of Williams discloses the functional equivalence of a supporting system comprising a porous fabric belt, means to form fabric tubular roll from the said porous fabric belt for carrying the fibers or filaments and means to guide said fabric tubular roll along with fibers and filaments through the pre-wetting troughs, the dye baths and the drying arrangements, therefore meeting the limitations of the instant claim(s).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY CHIANG whose telephone number is (571)270-7348. The examiner can normally be reached on Monday - Thursday 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harold Y Pyon/
Supervisory Patent Examiner, Art Unit 1796

/TIMOTHY CHIANG/
Examiner, Art Unit 1796
2/13/2010